

IN THE CLAIMS

Cancel claim 11.

Amend claims 9 and 21 as follows:

9. (Amended) A process for microbial leaching of a sulfidic material wherein bacteria of the genus Thiobacillus participate in the leaching process, and wherein the process comprises the steps of:

a) preparing an aqueous leaching fluid consisting of

at least one sulfur-containing amino acid selected from the group consisting of cysteine, methionine, homocysteine, and <sup>an</sup> amides <sup>or</sup> ~~and~~ esters thereof,

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optionally, bacteria of the genus Thiobacillus,

*112*

and optionally one or more salts; *New*

b) contacting said fluid with the sulfidic material for a length of time sufficient to achieve leaching,

wherein the bacteria are either a component of the aqueous leaching fluid of step (a), or, the bacteria are added to a discharging fluid, wherein said discharging fluid comprises the aqueous leaching fluid resulting from the performance of step (b).

10. (amended) The process of claim 9 wherein the leaching fluid includes the bacteria.

12. (amended) The process of claim 9 wherein the bacteria are added to the discharging fluid.

13. (amended) The process of claim 9 wherein, the total concentration of the one or more one sulfur-containing amino acids, or amide or ester derivatives thereof, is equal to or less than  $8 \times 10^{-3}M$ .

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14. (amended) The process of claim 9 wherein the pH of the leaching fluid is between 1 and 4.
15. (amended) The process of claim 14, wherein the pH of the leaching fluid is between 1.5 to 2.
16. (amended) The process of claim 9, wherein the bacteria are *Thiobacillus ferrooxidans*.

19. (amended) The process of claim 9, wherein the at least one sulfur-containing amino acid is an amide, an ester, or mixture thereof.

New + scope

20. (amended) The process of claim 13, wherein the total concentration of the sulfur-containing amino acids [or amide or ester derivatives] thereof is equal to or less than  $8 \times 10^{-3}M$ .

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Same as claim 13

21. (Amended) A process for microbial leaching of a sulfidic material, wherein the process comprises the steps of:

- a) preparing an aqueous leaching fluid consisting of

at least one sulfur-containing amino acid selected from the group consisting of cysteine, methionine, homocysteine, and amides<sup>an</sup> and<sup>or</sup> esters thereof,

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bacteria of the genus *Thiobacillus*,

and optionally one or more salts; and

New

- b) contacting said aqueous leaching fluid with the sulfidic material for a period of time sufficient to achieve leaching.